



US006048736A

United States Patent [19]
Kosak

[11] **Patent Number:** **6,048,736**
[45] **Date of Patent:** **Apr. 11, 2000**

[54] **CYCLODEXTRIN POLYMERS FOR
CARRYING AND RELEASING DRUGS**

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[21] Appl. No.: **09/223,055**

[22] Filed: **Dec. 30, 1998**

Related U.S. Application Data

[63] Continuation-in-part of application No. 09/067,921, Apr. 29,
1998, abandoned.

[51] **Int. Cl.⁷** **G01N 33/536**; G01N 33/564;
A01N 43/04; A61K 31/715

[52] **U.S. Cl.** **436/536**; 436/507; 514/58

[58] **Field of Search** 436/536, 507;
514/58

[56] **References Cited**

FOREIGN PATENT DOCUMENTS

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[57] **ABSTRACT**

This invention discloses methods for preparing compositions of cyclodextrin polymers for carrying drugs and other active agents. Methods are also disclosed for preparing cyclodextrin polymer carriers that release drugs under controlled conditions. The invention also discloses methods for preparing compositions of cyclodextrin polymer carriers that are coupled to biorecognition molecules for targeting the delivery of drugs to their site of action.

The advantages of the water soluble (or colloidal) cyclodextrin polymer carrier are:

- (1) Drugs can be used that are designed for efficacy without conjugation requirements.
- (2) It will allow the use of drugs designed solely for efficacy without regard for solubility.
- (3) Unmodified drugs can be delivered as macromolecules and released within the cell.
- (4) Drugs can be targeted by coupling the carrier to biorecognition molecules.
- (5) Synthesis methods are independent of the drug to facilitate multiple drug therapies.

9 Claims, No Drawings